

1 **DRAFT**

2 **SPECIAL MEETING**

3 Public Utilities Commission

4 Wallingford Water Division

5 377 S. Cherry Street

6 Wallingford, CT

7 Thursday, March 15, 2018

8 6:30 p.m.

9 **MINUTES**

10 **PUBLIC UTILITIES COMMISSION WORKSHOP REGARDING WASTEWATER**
11 **TREATMENT PLANT FACILITY PLAN AND ASSOCIATED PHOSPHORUS TREATMENT**
12 **PLANS**
13

14
15 **PRESENT:** Chair Robert Beaumont; Commissioners Joel Rinebold & Patrick Birney; Director
16 Richard Hendershot; Water and Sewer Divisions General Manager Neil Amwake; Water and
17 Sewer Divisions Office Manager William Phelan; Recording Secretary Cynthia Kleist; Public –
18 Dennis Setzko, P.E., Project Manager, AECOM; Ken Bradstreet, P.E., Design Engineer; Mayor
19 William Dickinson; State Rep. Mary Mushinsky; Larry Zabrowski – private citizen; Matt Zabierek,
20 Meriden Record-Journal.

21 Chair Beaumont called the Meeting to order at 6:30 p.m. and the Pledge of Allegiance was
22 recited.

23 Agenda taken in order:

- 24 1. Pledge of Allegiance
25 2. Introduction of Attendees and Topics
26 3. Review of Applicable Regulations and Recent History of the Issue of Phosphorus
27 4. Timelines; both State-Provided Funding Assistance, and Permit Compliance
28 5. Status of Facility Plan
29 6. Pilot Testing Results/Decisions
30 7. Opinion of Probable Cause/Cost Estimates
31 8. Questions from Commission and/or Staff

TOWN OF
WALLINGFORD
MAR 20 2018
DEPARTMENT OF
PUBLIC UTILITIES

1 Agenda Item #3 & Agenda Item #4.

2 Mr. Hendershot presented a review of applicable Regulations and recent history of the subject
3 of phosphorous. He noted Public Act No. 16-57 which is an Act concerning phosphorus
4 reduction reimbursements to Municipalities which he said was approved on May 26, 2016. He
5 said the key points were the deadline for being under construction contract and receiving full
6 funding for Municipalities pursuing phosphorus reduction was pushed one year and the grant
7 level was increased by 50% for select Municipalities of which Wallingford is one. He noted the
8 Title Page of the Clean Water Fund Report which discusses financial assistance programs for
9 Municipal Water Pollution Control for Fiscal Years 16/17. He said the Report referenced Public
10 Act. No. 16-57 and highlighted the 50% grant available for phosphorus removal components of
11 treatment plant upgrades, and noted that municipalities with phosphorus limits up to 0.31 mg/L
12 were now eligible for 50% grant funding (the previous limit was 0.20 mg/L for 50% grant
13 funding).

14 Mr. Hendershot said it was around this time that Mr. Amwake started as General Manager for
15 the Water and Sewer Divisions and began to learn of the phosphorus issues. He said the former
16 Director emphasized that other matters be addressed during Mr. Amwake's first six-months on
17 the job. Mr. Hendershot said on July 7, 2016, a letter from DEEP was issued to the Town
18 informing the Town about Public Act. No. 16-17 and applicable Regulations. Mr. Hendershot
19 spoke about an email from a Consultant to the Director, Water & Sewer Staff and the Law
20 Dept., talking about ongoing plans at that time and possible expenditures to continue efforts
21 where initially Wallingford and other communities, then just Wallingford, were pursuing other
22 means to comply with 16-57. He said these efforts were taking place as of October 2016.

23 Mr. Hendershot spoke about a memorandum dated November 2016 the former Public Utilities
24 Director George Adair, highlighting the potential cost impact of this project on the Town and the
25 suggestion of discussing this with the Legislative delegation in a continued effort to address
26 DEEP's Regulations.

27 Mr. Hendershot noted a December 16 memorandum from Mr. Adair to the Mayor, pointing out
28 that this effort has not gone well. He pointed out the Act that started this in 2012 and DEEP
29 reaffirming their findings of what should and needs to be done. Mr. Hendershot said in March
30 2017, the Water and Sewer Divisions Staff and Dept. of Public Utilities obtained Town Council
31 approval to use the Qualifications Based Selection Process which is encouraged and emphasized
32 by DEEP, which resulted in Wallingford securing the services of AECOM. He went over the July
33 2017 reminder letter to the Town regarding phosphorus removal action and the timing, the
34 funding levels and Statutes.

35 Mr. Hendershot said on August 31, 2017, and slightly before this, he and Mr. Amwake prepared
36 a memo and brief white paper on a budget amendment to increase funding so a purchase order
37 could be issued to AECOM. He said the bid waiver was approved on Sept. 12, and AECOM

1 began work in early October and on March 1 AECOM provided DEEP with the 120-day Fast
2 Track Plan. Mr. Hendershot said Mr. Amwake has discussed this plan with DEEP. Mr. Amwake
3 said this discussion with DEEP revolved around the Phase 1 Fast Track Plan which encompassed
4 several hundred pages which he highlighted. He said there are two aspects, one of them being
5 the funding aspect, which involves the Town having to be under a contract with a Contractor by
6 July 1, 2019 in order to qualify for the 50% grant on phosphorous related items. Mr. Amwake
7 said there is a regulatory schedule and by April 1, 2020, the project must be under construction
8 and by April 1, 2022, the phosphorus treatment technology must be fully up and running,
9 meeting our permit limits.

10 Mr. Rinebold asked the consequences of failing to meet the standards. Mr. Amwake said when
11 the Public Act was put forth, eleven communities qualified for the 50% phosphorous grant. He
12 said normally the Grant is 30%, noting that nitrogen is still 30%. He said that if Wallingford
13 missed this deadline, the presumption is that the 50% grant is reduced to 30%. He addressed
14 what would happen if Wallingford didn't meet the permit of April 2022. He said with
15 speculation, the Town would end up with a negotiated consent order and the Town would have
16 to meet the permit limit and there would be greater oversight by the DEEP. He said at this
17 point, the Town still has some flexibility to self-identify the best way for the Town. He said
18 there could also be fines for missing the permit deadlines.

19 Mr. Amwake said July 1, 2019, the contract must be signed with the Contractor, which means
20 between now and July 1, the Town must bring AECOM on board for the design, bid and award.
21 He said on April 1, 2020, construction needs to be initiated, then on April 1, 2022, the plant
22 must be up and running with the phosphorus treatment.

23 Mr. Zabrowski, Cheshire Rd., asked if there could be an exemption for the standards because
24 only 0.9 miles of the Quinnipiac River is being affected before the river is tidally influenced. Mr.
25 Hendershot said there was a sense of no flexibility or open-mindedness on DEEP's part on this
26 matter. Mr. Hendershot said a cost estimate has been prepared for this unlikely scenario.

27 Mr. Setzko went over the slide presentation and the goals and objectives of the plan. He said
28 this Facility Plan is all-encompassing and spoke about what will be done to meet the proposed
29 phosphorus limits. He said the entire project will be looking at phosphorus, nitrogen and other
30 treatment plant needs. Mr. Setzko said the disposal and growth needs of the Town need to be
31 met to ensure the WWTP can handle this, which also involves phosphorus. Mr. Setzko said this
32 project is a two-phase approach which involves Phase 1, which is the Fast-Track approach to
33 take advantage of the funding which has a deadline to be under construction by July 1, 2019
34 and Phase 2 will address other treatment plant improvements to be phased in down the line.
35 Chair Beaumont asked about aluminum. Mr. Setzko noted aluminum sulfate is one option to
36 remove phosphorus. He noted if aluminum sulfate is used, and the discharge of aluminum goes
37 into the river, it may be too high and may have to be addressed. He said when he did piloting,
38 this was tested.

1 Mr. Setzko went over the WWTP statistics, noting that currently, the annual average flow is 5.1
2 MGD; the maximum monthly flow is 9.0 MGD; the maximum day flow is 19.1 MGD. He noted
3 the phosphorus season is from April 1 through Oct. 31. Mr. Setzko said the plant has
4 experienced flows of over 20 MGD. Mr. Setzko said the future flows with the growth expected
5 and areas of Town that aren't currently sewered but will be, show the annual average flow
6 going up from 5.1 MGD to 5.5 MGD, with the maximum day flow to meet future needs going to
7 19.56 MGD. Mr. Birney asked how these figures were arrived at noting water consumption was
8 trending downwards. Mr. Setzko said there were a variety of areas within the sewer service
9 areas that aren't connected at this time, but may be connected in the future. He said there are
10 locations, small pockets, where there are different zoning, i.e., Transit Oriented District (TOD),
11 where additional flows are anticipated. He said these are the sewer service areas projected
12 many years ago. He said there are more potential connections in the existing areas and this is a
13 20 years projection. He noted infiltration in the future numbers was taken into consideration.

14 Mr. Setzko said the current WWTP operating permit became effective April 23, 2014 and expires
15 April 24, 2018. He said the seasonal phosphorus limit at this time was 0.7 mg/L which is
16 carrying through to April 2022 with the next NPDES Permit between April 2018 and 2022. Mr.
17 Setzko said the average seasonal load cap of 8.95 lbs/day must hit by the end of the season.
18 He pointed out the seasonal load cap controls the processes available for phosphorus removal.
19 He said there are a lot of issues that come into play. He pointed out some of these processes
20 were piloted in late October, early November, with the target being 0.1 milligrams per liter. He
21 said even though there is a load cap, there are other New England communities that have seen
22 a hard permit limit of 0.1 mg/L.

23 Mayor Dickinson asked if the Town was not required to go to 0.1 mg/L, why this would need to
24 be done. Mr. Setzko said the processes are still the same, nothing has to be added, but we
25 need to know we can get there. He said CT, unlike other New England Communities, doesn't
26 have the hard 0.1 mg/L number, they have the seasonal load cap. Mr. Rinebold asked why
27 there is a seasonal cap. Mr. Setzko said phosphorus is for the growth of algae and there is not a
28 growth issue in the winter time in the receiving stream. Mr. Amwake noted that Massachusetts
29 has year-round phosphorus levels. He said the DEEP recognizes that as a municipality gets
30 some higher flows and some rainfall, the Town may not always going to hit the 0.13 mg/L goal
31 for the design flow rate. He said the DEEP says the maximum monthly average might go up to
32 0.31 mg/L particularly in April when there are spring storms and runoff. He said the maximum
33 daily limit, DEEP allows up to 0.62 mg/L because there may be a summer deluge which floods
34 the plant and there is no time to react.

35 Mr. Setzko went over the compliance schedule. He said that the Fast Track Facility Plan for
36 Phosphorus Removal report was submitted to DEEP on March 1. Mr. Setzko said the important
37 date is July 1, 2019 which is the date to enter into a construction contract to be eligible for the
38 50% project grant for phosphorus removal costs (design and construction). He noted no later
39 than April 1, 2020 is the date to begin construction of the phosphorus removal project. He said

1 April 1, 2022 is the date to complete the phosphorus treatment construction project such that
2 the treatment process is fully operational and effluent meets new phosphorus effluent
3 requirements. Mr. Birney asked if the Town will need every single day from now through July 1,
4 2019. Mr. Amwake said when the plant was designed and came on line in 1989, the planning
5 study took three years and the design took three years. He said we are attempting to do the
6 planning study, the design and the bidding within approximately 21 months. Mr. Setzko said
7 there are three general processes looked at for Wallingford: disc filtration (Aqua, Aerobics and
8 Kruger); Media filtration/adsorption (BluePro and Dynasand) and ballasted floc clarification
9 (Actiflo and CoMag). He said all these processes have the experience of getting the phosphorus
10 limit down to 0.1 mg/L. He said the issue is what process will work in Wallingford because of
11 the type of existing processes at the Wallingford WWTP. He said this was piloted which he
12 explained involves pulling a piece of the 5 MGD going through the treatment plant and run it
13 through a small scale version of the piloted technologies.

14 Mr. Setzko said the advantages of the disc filtration system are that there are a couple of
15 manufacturers and the process can get the phosphorus down to 0.1 mg/L. He said it is a simple
16 operation but noted some of the disadvantages involve the backwash rates which increases the
17 solid handling needs and no history of this system working on the RBC's of which Wallingford
18 has 56. Mr. Hendershot asked about pin floc. Mr. Setzko explained this is a very fine, very
19 difficult to settle floc which is biomass which has phosphorus in it. He said there is soluble
20 phosphorus in the floc and the phosphorus in the biomass. He said to bring the phosphorus
21 down to 0.1 mg/L, the soluble must be removed as well as the particulate.

22 Mr. Setzko spoke about a sand filter which has a column with sand in it. He said a coagulant is
23 fed into this column and the matter is lifted out and removed. He said the disadvantage is this
24 column takes up a lot of space. He noted one full size of these is eight feet in diameter and
25 Wallingford would need 72 of them. He noted that when the pilot was done and the higher
26 solids came in, this sand filter did not function that well. He said another disadvantage is the
27 capital investment and in the winter, when phosphorus doesn't need to be removed, water
28 must still be run through the sand filter.

29 Mr. Setzko spoke about the ACTIFLO ballasted floc process which has a reliable performance to
30 0.1 mg/L and has a compact footprint, recovers well upon plant upset; many reference plants in
31 Wallingford size range; good performance with solids and is off-line in winter. He said the
32 disadvantages are more mechanically intensive and expandability. Mr. Setzko said the three
33 processes were piloted out in late October to early-mid-November and set them out and ran
34 them head to head. He went over the program for testing: Phase 1, steady state alum and
35 polymer dose/response testing; Phase 2: steady state testing which involved operation at the
36 Hydraulic Loading Rates at annual average and maximum month flux rates with observation
37 done under normal conditions; Phase 3: hydraulic stress testing which was observing response
38 of systems to incremental increases in flow up to maximum HLR; Phase 4 – solids stress testing
39 which observed response of system to simulated solids wash-out conditions, under varying flow

1 rates; Phase 5 – steady state ferric chloride and polymer response testing to develop as much
2 information as possible on varying combinations of polymer and ferric should there be a future
3 aluminum effluent limit, resulting in a switch from alum to ferric chloride as the polymer for
4 phosphorus treatment.

5 Mr. Setzko said the goal is to achieve less than 0.13 mg/L total phosphorus in the effluent with
6 a target of 0.10 mg/L. He said all three technologies showed the ability to achieve less than
7 0.10 mg/L Total Phosphorus (TP) in the effluent. He said the difference was in the consistency
8 of the effluent, noting this was the biggest issue. Mr. Setzko noted the current plant
9 phosphorus and solid removal was inconsistent with these units; low-levels of phosphorus are
10 required and if spiking of phosphorus comes in this plant does not react to it well. He said the
11 goal is to level this off so the process is more consistent. He said there were problems with the
12 pin floc particularly with the disc filter process. He said with the parts, it created flooding and
13 the disc filter had a hard time capturing the floc which went through and phosphorus effluent
14 levels went up. Mr. Birney asked if pin floc was unique to where we are. Mr. Setzko answered
15 that pin floc is unique to an RBC process noting most treatment plants are an activated sludge
16 type of plant.

17 Mr. Setzko said we are looking at what process will serve Wallingford the best. He said
18 phosphorus must be addressed at the source of generation because we want to have the
19 influent consistent and go after places where phosphorus is generated and knock it down at
20 that point. He said process controls are essential to operation and noted plant effluent alkalinity
21 is low and will need to be addressed. Mr. Setzko said the biggest concern was the pin floc and
22 the RBC's (rotating biological contactors) and ensuring there would be a process that will work.
23 Mr. Zabrowski asked if there was a survey done regarding what other municipalities are using.
24 Mr. Amwake said Cheshire is using disc filtration and Meriden is proposing to use Dyna Sand
25 with Manchester and Bristol using ballasted flocculation.

26 Mr. Rinebold asked about the data in the pilot and gave Mr. Amwake credit for going to other
27 municipalities that had these systems in operation. He wondered if there was divergence in the
28 findings and data based on what was found in the pilots that he assumed was undertaken to
29 test performance in the rotating discs. Mr. Amwake said they went to observe the design and
30 layout, and operational issues. He noted they were impressed with Manchester's ACTIFLO
31 system and design, whereas West Marlborough, MA had the Dynasand which is two stories tall
32 and noted they only had 12. He wondered what would happen if Wallingford installed 72 of
33 these. He said Cheshire has a lot of backwash on the discs and noted they have activated
34 sludge. Mr. Setzko noted that Cheshire also has the BAF process (biologically activated filter)
35 which Wallingford doesn't have.

36 Mr. Hendershot said he would like to see the RBC's (rotating biological contactors) kept, noting
37 the plant would still need to operate while they were removed, if that we done. Mr. Setzko
38 noted he looked at replacing the RBC's but the cost was very high. Mr. Zabrowski asked if there

1 was a variance between the secondary treatment from town-to-town or is it all the same. Mr.
2 Setzko said this is a hard question because every town is different, but noted commonly, the
3 activated sludge type plant will do better than an RBC type plant. Mr. Setzko noted that any
4 issues with meeting effluent targets were the result of lack of solids capture because of
5 variances in pin floc and dosing it at a flat rate and if the chemistry isn't right, this doesn't work
6 always work correctly.

7 Mr. Setzko noted that Parkson-Dynasand had the most on-site performance issues, particularly
8 with solids spiking, which was a concern. He added that under stable conditions, it did a great
9 job. He said the ACTIFLO removed phosphorus in the most consistent manner. Mr. Bradstreet
10 said there is more involved than just the phosphorus process. He showed an aerial photo of the
11 Wallingford Wastewater Treatment Plant and the RBC's. He noted that Wallingford's plant is
12 very unique, stating he didn't believe there was a plant like this in New England. He said
13 Wallingford's plant has 56 RBC's. He said the plant was modified in 2005 to incorporate nitrogen
14 reduction. He said a pump station was added to recirculate the RBC effluent and primary
15 effluent through the process to reduce nitrogen.

16 Mr. Bradstreet said most of the plant was constructed in 1989 and the RBC's go back to 1989.
17 He said the RBC's were inspected and were found to be in excellent condition, because of good
18 maintenance and the initial design of the RBC's that were installed. Mr. Bradstreet said these
19 RBC's could last another 20 years, but noted the prudent thing would be to replace some of the
20 drives and shafts to the RBC's every year. He said the cost to replace is fairly small, compared
21 to the cost of tearing down the entire Wastewater Treatment Plant and starting over.

22 Mr. Amwake pointed out there is \$95,000 in the Fiscal Year 18/19 budget for RBC maintenance.
23 Mr. Bradstreet said the system is holding up well and based upon that, it's fairly easy to make
24 the decision to keep going in the direction the Town is going. He said the system is doing the
25 best it can and is able to get down to around 10 milligrams per liter of phosphorus coming off
26 the RBC's, but to meet the future permit limits, this figure must be down to 5 or 6 milligrams
27 per liter of phosphorus. Mr. Bradstreet said there is not enough room in the hydraulics between
28 the end of the secondary settling tanks, so the flow goes into the post-duration and the UV
29 which floods. He said there is no room to put this process into the existing hydraulics, so we will
30 have to pump up. He said the current post aeration system and the UV will have to be replaced.
31 He said the UV is the first generation, probably one of the first system installed in the State and
32 when it floods, there are electrical problems and it has to be dried out with air dryers. He said
33 the system is also inefficient.

34 Mr. Rinebold asked about an alternative to the UV. Mr. Amwake said the alternative would be
35 chlorine, which would create a big handling issue, safety and training. Mr. Bradstreet said a big
36 chlorine contact tank would also be required. He said the average flow is 5 1/2 MGD. Mr.
37 Bradstreet said a consistent influent into the phosphorus treatment tertiary process is needed.
38 He said alum is being put into the secondary's which knocks the phosphorus down. He said this

1 is hit or miss, the level of phosphorus is measured once or twice a day and the feed is adjusted.
2 Mr. Bradstreet said a system would be installed that had multi-point chemical additions, so this
3 could be installed in the primary's or secondary's and be tied in to the tertiary process to make
4 it consistent.

5 Mr. Bradstreet also pointed out the area where secondary settling tanks could be installed. He
6 said the current tanks cannot handle the solids that were pushing through because of the
7 nitrogen process. He said to meet the standards (loading rates), two more tanks must be
8 installed. He said the effluent going to the phosphorus treatment tertiary process must be as
9 good as possible in order to get as many solids out as possible to limit the alum usage. He said
10 the each tank would be 115 ft. long and approximately 38 ft. wide with two sets of collectors in
11 each tank. He said this plant was designed to have two additional tanks installed at a later date.
12 Mr. Bradstreet spoke about biological phosphorus removal which now is being done using the
13 primary settling tanks which he said was not the most efficient and effective manner. Mr.
14 Bradstreet said this takes a lot of operator attention. He said installing an anaerobic basin is one
15 way to institutionalize this and make the process more controlled. He said by doing this, there
16 will be biological phosphorus removal as well as nitrogen removal. He said this will reduce the
17 amount of chemicals needed. Mr. Bradstreet said that eventually, the entire solids handling
18 complex will have to be upgraded with a decision needing to be made to either keep the
19 digestion process or get rid of it and go with thickening and de-watering. He said this may be
20 the way to go.

21 Mr. Zabrowski asked if under this plan, there was no sludge removal or de-watering. Mr.
22 Bradstreet pointed out these systems are in place now. He said what is trying to be
23 accomplished with this project is to get done what needs to be done for phosphorus. He said if
24 there was a more time, the entire plant could be upgraded because there are a lot of things
25 that are worn out and obsolete, one of them being the solids handling. He said there is not
26 enough time to do this piece and meet the funding deadline to get maximum phosphorus grant
27 funding.

28 Mr. Bradstreet also noted there is not enough electrical power to handle the new processes.
29 Mr. Hendershot said we are looking at the alpha test for the virtual demand response program
30 at the Water Plant where there is a lot of discretionary pumping load. He said by choosing not
31 to pump, at the time of day where the Electric Division would like them not to pump, the
32 Electric Division rewards them with a credit on the electric bill. Mr. Bradstreet said the problem
33 is the water is coming in and has to be dealt with from the front to the back. He said the
34 biggest electrical costs will be the pumping.

35 In answer to Mr. Rinebold's question, Mr. Bradstreet said we are now trying to do things to get
36 this phase of the project completed. He pointed out the service is too small and if this were
37 really to be done, the service would have to be changed, the transformer that feeds the service
38 would have to be changed, and the generator would have to be changed. Mr. Hendershot noted

1 the high-voltage cable is alright. Mr. Bradstreet noted there currently is 2,000 amp service
2 which needs to be 3,000 amp or 4,000 amp service.

3 Mr. Bradstreet said the electrical people came up with the idea to get rid of the big 650 kilowatt
4 generator and install a larger one in an outside enclosure and use the space where the old
5 generator was to install the new service switch gear and backfeed the existing switchgear
6 otherwise all the feeds and the MCC's in the entire plant will have to be replaced because they
7 are obsolete.

8 Mr. Rinebold asked what the comfort level would be to a facility as this without backup
9 generation. Mr. Amwake said the question was asked yesterday and noted the backup
10 generator hasn't been used in 30 years but it doesn't matter to DEEP. Mr. Bradstreet noted the
11 Town has to have the generator. Mayor Dickinson asked if the estimates included the
12 emergency generator. Mr. Bradstreet said the cost estimates include this figure. Mr. Rinebold
13 said the ultraviolet disinfection is obsolete and must be replaced because it is flood prone. Mr.
14 Bradstreet said the water going out to the river must have dissolved oxygen. He said the solids
15 handling has to be upgraded but noted this probably won't occur for several years so we have
16 to make sure what we have can handle the existing loads.

17 Mr. Bradstreet discussed the problems with low alkalinity which could cause problems with the
18 nitrogen process. He spoke about the SCADA system to run the intermediate pump station. He
19 suggested incorporating the existing SCADA system for intermediate pump station. He said this
20 is run on a fiber optic system through the plant to tie the system together. Mr. Rinebold asked if
21 there was a possibility to tie the electrical with one of the Pierce Plant units. Mr. Hendershot
22 said there is only one unit at the Pierce Plant which is 77 times the size of Water Treatment
23 Plant load and it couldn't be run at just one megawatt.

24 Mr. Setzko went over the cost estimates which he said DEEP needs to approve. He said the
25 total estimated cost for Phase 1 would be \$47,039 million with total estimated construction cost
26 at \$39,039 million; design services at a cost of \$3.4 million; construction services at \$4.6
27 million. Mr. Setzko said total amount eligible for funding at 50% would be \$28.4 million; 30%
28 funding at \$737,000 and at 20% funding at \$9.829 million. Construction Grant funding dollars
29 at 50% would be \$14,236,080; 30% would be \$221,100; 20% would be \$1,965,968;
30 percentage of funding that is grant – 42.07%; professional services - \$8,000,000; Professional
31 services eligible for grant - \$3,365,485; Total grant funding - \$19,788,633; 2% loan for 20
32 years - \$27,250,367; Project total - \$47,039,000.

33 Mr. Amwake noted that one of the discussions with DEEP staff was that when we are in the
34 design phase, there will be a three, four or five-day value engineering (VE) session. He noted
35 value engineering is not necessarily about cutting cost, but about looking at the design and
36 construction, logistics and phasing. Mr. Bradstreet said because of the stage, he is looking at
37 conceptual design with a 30% funding contingency on top of everything. Mr. Setzko said with

1 Phase 2, the entire plant will be looked at including nitrogen, solids handling improvements,
2 office and laboratory space, headworks, electrical, HVAC systems, etc. He said this won't be as
3 costly as Phase 1. Mr. Setzko said the solids handling building needs an upgrade now. Mayor
4 Dickinson spoke about the affordability issue which will have a serious impact on the taxpayers.

5 Mr. Birney asked about the useful life of a Wastewater Treatment Plant. Mr. Setzko said the life
6 typically would be 20 years. Mr. Amwake noted the re-imbursement rate for a new plant would
7 be 30% for the nutrients and 20% for the remainder. He said Wallingford is 1 of 11
8 communities that qualify for a 50% grant for phosphorus only. Mr. Hendershot pointed out
9 there is money in the FY 18/19 budget for financial forecast and cost of service study for Sewer
10 with this in mind. Mr. Zabrowski asked about a reserve over the 30 years of operation. Mr.
11 Hendershot said there is some cash above minimum. Mr. Phelan noted the reserve in the Sewer
12 Division is approximately \$7.3 million that is the minimum reserve number and cash above
13 minimum approximately \$34.9 million which is available money. Mr. Amwake said in the 18/19
14 budget, money was included to look at what the cost would be, how this balances against
15 future rate stabilization, spending down some reserves and the impact on the customer. Mayor
16 Dickinson noted the other factor is keeping in mind the increase in operating costs, which could
17 be over a million dollars. Mr. Amwake noted the preliminary costs are about 1/4th of that cost, a
18 quarter million including sludge and additional operating expenses and additional electrical is
19 projected at this time. He said it's not just capital costs; it is design construction and long term
20 O&M expenses.

21 Mayor Dickinson said it's not a question of something has to be done, it's what is justifiable, and
22 giving the public all the facts, what would they find as a legitimate rate increase vs. something
23 that is nice to have but not essential. Mr. Amwake said there has been robust discussion
24 internally and with AECOM. Mr. Zabrowski asked if there is an additional load being put on the
25 sludge handling, why wouldn't this be included in the 50%. Mr. Amwake this is AECOM's
26 proposal at this point and we still need DEEP's sign off. Mr. Setzko said the sludge handling is a
27 part of Phase 2. Mr. Amwake said the next milestone is for DEEP to approve the Fast Track
28 Report.

29 Chair Beaumont asked about the timeframe for accomplishing the rate study within the fiscal
30 year. Mr. Amwake said we would be in a better position by mid-fall because at that point, the
31 full Facility Plan will be there and will have the full cost estimates for Phase 1 and Phase 2 and
32 we are looking to move forward with AECOM for the design.

33 State Rep. Mary Mushinsky asked if there was any way to build in extra capacity into the plant
34 for nitrogen credits. Mr. Hendershot said we are reaching the point where there are more
35 people that have credits to give up then are needed. Mr. Bradstreet said the way credits are
36 valued have been changed. He said DEEP used to fund the difference, but now DEEP doesn't
37 put any money into this, but any money left over from the buyers goes to the sellers. Mr.

1 Amwake noted that Stamford with a large investment, is suffering from diminishing returns
2 because other plants are caught up.

3 Mr. Rinebold asked if any of this goes out to competitive bidding. Mr. Bradstreet said we know
4 what the project is and can cost estimate this. He said there is the 30% unknown added in,
5 some will be less expensive as we get into it, some costs may go up and some costs may go
6 down. Mr. Rinebold asked about the process regarding the bidding. Mr. Amwake said this goes
7 through our Bureau of Purchasing. Mayor Dickinson said the project won't be funded until there
8 are actual bid numbers. Mr. Hendershot said he, with Mr. Amwake's help, will be sending a
9 memo to the Mayor requesting a Town Council item for a bid waiver to bring AECOM on to
10 continue into the design phase for this project. Mr. Amwake said DEEP needs to approve the
11 scope and the fee before the Town can execute a design contract with AECOM. He said the
12 reason we are in this position is because we used the qualifications based selection when we
13 advertised for the Facility Plan.

14 Mayor Dickinson said the timeline is not going to sit right with a lot of people and there has to
15 be substantive reasons of why we are on a very fast timeline regarding the design bid waiver
16 request.

17 **ADJOURNMENT**

18 Mr. Birney made a motion to adjourn the Meeting at 8:45 p.m. Mr. Rinebold seconded the
19 motion which passed unanimously.

20 Respectfully submitted,

Respectfully submitted,

21

22 Cynthia A. Kleist

Joel Rinebold

23 Recording Secretary

Secretary

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25

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